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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,313	02/06/2004	Y.S. Fung	2587/79618/RDK	7424
23432 7590 07/20/2009 COOPER & DUNHAM, LLP 30 Rockefeller Plaza 20th Floor NEW YORK, NY 10112				
EXAMINER				
MAYEKAR, KISHOR				
ART UNIT		PAPER NUMBER		
1795				
MAIL DATE		DELIVERY MODE		
07/20/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/772,313

**Applicant(s)**

FUNG ET AL.

**Examiner**

Kishor Mayekar

**Art Unit**

1795

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 2 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2 July 2009 has been entered.

### *Response to Amendment*

2. The amendment of 15 June 2009 has been entered. Claims 1, 3-8, 12 and 15 have been amended and claim 2 has been cancelled. Claims 1 and 3-17 are pending in this application with claim 1 being independent claim.

### *Claim Rejections - 35 USC § 103*

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1 and 3-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over December (US 6,214,188 B1). December's invention is directed to an anodic

electrodeposition method. December discloses, in the abstract and col. 6, lines 48-55, that the method comprises the steps of immersing a conductive workpiece in a basic electrophoretic bath

- o comprising, in an aqueous medium, an emulsion of polymer with particle size between 0.05 to 5 microns (or 50 to 5000 nm) , preferably less than 2.0 microns;
- o having an electroconductivity between 0.1 to 5 mS/cm (or 100 to 5000  $\mu$ S/cm), see col. 8, lines 9-16;
- o having a pH of 7.9, see Examples 2 and 4; and
- o containing a coalescing solvent in an amount between 0 and 15 wt%, preferably from 0.5 to 2.0 wt%, see col. 7, lines 32-46.

December also discloses in Example 5 the coating method and in Example 2 with the emulsion having a particle size of 0.22 microns (or 220 nm). The difference between December and independent claim 1 is the recited limitation of the particles "having a particle size between 10 and 100 nm with an average particle size of about 50 nm". However, since December discloses that his emulsion having **the average particle size diameter of about 50 to 2000 nm**, that is **including the average particle size of about 50 to 100 nm**, it appears that December's method is able to electrodeposit particles of the recited limitation when the bath comprises particles having the average particle size of 50 to 100 nm, and further, in view of particle size of 220 nm in Example 2, the selection

of the particle size, namely 50 nm, within the recited limitation for the anodic electrodeposition method would have been within the level of ordinary skill in the art.

As to the subject matter of claims 4 and 5, December discloses that the bath may contain pigments. As such the provision of the bath with or without pigment would have been obvious by the teachings of December.

As to the subject matter of claim 6 or 12, December discloses that the bath has a solids content of 19% (Examples 2 and 4).

As to the subject matter of each of claims 7-11 and 13-17, December further discloses the effecting of the coating and the curing of the formed coating (col. 8, lines 16-27 and Example 5 with an error indicated on the bath temperature as asserted by the examiner in the final Office action of 14 April 2009). The difference between December and claims 7 and 13 is the recited driving voltage. The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified December's teachings because it has been settled that proper adjustment of a known effective variable of a known or obvious process is within the capabilities of one having ordinary skill in the art. *In re Aller* 105 USPQ 233.

#### ***Response to Arguments***

5. Applicant's arguments filed 15 June 2009 have been fully considered but they are not persuasive because of the detailed rejection to the argument directed to the recited

limitation of the particles "having a particle size between 10 and 100 nm with an average particle size of about 50 nm".

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kaylo discloses in an anodic electrodeposition method bath containing an emulsion of polymer having an average particle size of less than 0.15 micron (or 150 nm), see c. 5, l. 5-26 and c. 6, l. 11-18.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on

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access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kishor Mayekar/  
Primary Examiner, Art Unit 1795